

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously Presented) A receiver optical sub assembly, comprising:  
  
a multi-mode optical fiber stub; and  
  
a lens system oriented with respect to the multi-mode optical fiber stub to focus an optical beam exiting the multi-mode optical fiber stub onto an active area of an optical detector,  
  
wherein the multi-mode fiber stub includes an exit surface, the exit surface being polished at an angle with respect to an optical axis of the multi-mode fiber stub,  
  
wherein the optical detector is offset from the optical axis of the multi-mode optical fiber.
2. (Original) The assembly of claim 1, wherein the multi-mode optical fiber stub is mounted in a stub holder, the stub holder being positioned in a receptacle.
3. (Original) The assembly of claim 2, further including a split sleeve positioned over a portion of the multi-mode optical fiber stub, the split sleeve being capable of positioning a single-mode optical fiber to optically couple with the multi-mode optical fiber stub.
4. (Original) The assembly of claim 1, wherein the lens system is mounted on a lens cap, the lens cap being mounted on a TO header so that the beam is focused on an active area of a detector mounted on the TO header.
5. (Original) The assembly of claim 1, wherein the lens system is a ball lens.
6. (Original) The assembly of claim 1, wherein the optical detector is an avalanche photo diode.
7. (Cancelled)

8. (Original) The assembly of claim 1, wherein the angle is about 8 degrees.
9. (Cancelled)
10. (Previously Presented) A method of receiving light in a receiver optical sub assembly, comprising:
- coupling a light beam from a single-mode optical fiber into a multi-mode fiber stub via a sleeve, wherein the sleeve aligns the single-mode optical fiber and the multi-mode fiber stub; and
  - focusing the light beam onto an active area of an optical detector.
11. (Original) The method of claim 10, further including
- providing an angled exit surface on the multi-mode fiber stub; and
  - positioning the active area of the optical detector to compensate for the angled exit surface.
12. (Previously Presented) A receiver optical sub assembly, comprising:
- a sleeve for coupling an optical fiber and a multi-mode fiber stub; wherein the sleeve aligns the optical fiber and the multi-mode fiber stub;
  - means for receiving a light beam into the multi-mode fiber stub; and
  - means for focusing the light beam onto an active area of an optical detector.
13. (Original) The receiver of claim 12, further comprising:
- means for increasing the return loss characteristics of the receiver optical sub assembly.
14. (Original) A method of assembling a receiver optical sub assembly, comprising:
- press fitting a multi-mode fiber stub into a stub holder;
  - positioning a split sleeve over a portion of the multi-mode fiber stub;

press fitting the stub holder into a receptacle;  
positioning a lens system in a lens cap;  
positioning a detector onto a header;  
mounting the lens cap to the header so that light received by the lens system is focused onto an active area of the detector;  
actively aligning the active area of the detector with respect to the multi-mode fiber stub; and  
positionally fixing the active area of the detector with respect to the multi-mode fiber stub.

15. (Original) The method of claim 14, wherein positionally fixing the active area includes epoxying the header to the receptacle.

16. (Cancelled)

17. (Previously Presented) A receiver optical sub assembly, comprising:  
a multi-mode optical fiber stub;  
a lens system oriented with respect to the multi-mode optical fiber stub to focus an optical beam exiting the multi-mode optical fiber stub onto an active area of an optical detector, wherein the multi-mode optical fiber stub is mounted in a stub holder, the stub holder being positioned in a receptacle; and  
a split sleeve positioned over a portion of the multi-mode optical fiber stub, the split sleeve being capable of positioning a single-mode optical fiber to optically couple with the multi-mode optical fiber stub.

18. (Previously Presented) A receiver optical sub assembly, comprising:

a multi-mode optical fiber stub; and

a lens system oriented with respect to the multi-mode optical fiber stub to focus an optical beam exiting the multi-mode optical fiber stub onto an active area of an optical detector,

wherein the optical detector is offset from the optical axis of the multi-mode optical fiber.